Dynamics and stability of a vortex ring impacting a solid boundary. J. D. SWEARINGEN, J. D. CROUCH and R. A. HANDLER *page* 1

Kinetic-energy mass, momentum mass, and drift mass in steady irrotational subsonic flows. C.-S. YIH 29

Supercritical withdrawal from a two-layer fluid through a line sink. G. C. HOCKING 37

On the two-way interaction in two-dimensional particle-laden flows: the accumulation of particles and flow modification. O. A. DRUZHININ 49

Fundamental and subharmonic secondary instabilities of Görtler vortices. FEI LI and MUJEEB R. MALIK 77

Boundary layer transition triggered by hairpin eddies at subcritical Reynolds numbers. MASAHITO ASAI and MICHIO NISHIOKA 101

Finite deformation of liquid capsules enclosed by elastic membranes in simple shear flow. C. POZRIKIDIS 123

Fluid flow in loops driven by freshwater and heat fluxes. W. K. DEWAR and R. X. HUANG 153

Pressure-impulse theory for liquid impact problems. MARK J. COOKER and D. H. PEREGRINE 193

Numerical study of the oscillations of axially excited liquid annuli with rotational symmetry enclosed in revolving circular cylindrical containers. M. EHMANN and J. SIEKMANN 215

Mass transport of interfacial waves in a two-layer fluid system. JIANGANG WEN and PHILIP L.-F. LIU 231

Standing and travelling oscillatory blob convection. R. M. CLEVER and F. H. BUSSE 255

Refined similarity hypotheses for passive scalars mixed by turbulence. G. STOLOVITZKY, P. KAILASNATH and K. R. SREENIVASAN 275

Flow focusing instability in a solidifying mushy layer. A. O. P. CHIARELI and M. GRAE WORSTER 293

Edge waves along periodic coastlines. Part 2. D. V. EVANS and M. FERNYHOUGH 307

Analytical solutions for the actuator disk with variable radial distribution of load. JOHN T. CONWAY 327

Hydrodynamical instabilities of thermocapillary flow in a half-zone. MÅRTEN LEVENSTAM and GUSTAV AMBERG 357

Time-dependent transport by convection and diffusion with exchange between two phases. C. G. PHILLIPS, S. R. KAYE and C. D. ROBINSON 373

CORRIGENDUM 402

REVIEWS 403

INDEX TO VOLUME 297 408

SCHEDULE OF INTERNATIONAL CONFERENCES ON FLUID MECHANICS 410